

CLAIMS

What is claimed is:

1. A vacuum connector comprising:

an inlet;

5 an outlet;

a separation chamber in communication with the inlet;

an air pathway in communication with the separation chamber and the outlet; and

a fluid pathway separate from the air pathway, and in communication

10 with the separation chamber and the outlet.

2. The connector of claim 1, and further comprising a flow indicator coupled to the fluid pathway.

15 3. The connector of claim 1, and further comprising a bioaerosol inlet separate from the inlet, and in communication with the outlet.

4. The connector of claim 1, and further comprising a volumetric indicator coupled to the fluid pathway.

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5. The connector of claim 1, and further comprising a decontamination unit in cooperation with the outlet.

6. The connector of claim 1, and further comprising a collection chamber in communication with the separation chamber.
7. The connector of claim 1, and further comprising a vacuum regulator in cooperation with the inlet.
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8. The connector of claim 1, and further comprising a flowmeter coupled to the fluid pathway, and a microprocessor in communication with the flowmeter and capable of calculating flow rates and total volume
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9. The connector of claim 1, and further comprising an end effector in communication with the inlet.
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10. The connector of claim 1, and further comprising a vacuum source in communication with the outlet.
11. The connector of claim 1, wherein the separation chamber includes a baffle in cooperation with the inlet for optimizing the separation of liquid and gaseous material.
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12. The connector of claim 1, wherein the separation chamber includes a filter in cooperation with the inlet for optimizing the separation of solid materials.

13. A vacuum system comprising:

- a vacuum source;
- a connector in communication with the vacuum source and comprising of
- an inlet, an outlet, a separation chamber in communication with the inlet, an air
- 5 pathway in communication with the separation chamber and the outlet, and a
- fluid pathway separate from the air pathway and in communication with the
- separation chamber and the outlet; and
- an end effector in communication with the inlet.

10 14. The system of claim 13, and further comprising a flowmeter coupled to the fluid pathway, and a microprocessor in communication with the flowmeter and capable of calculating flow rates and total volume.

15 15. The system of claim 14, and further comprising an input device in communication with the microprocessor.

16. The system of claim 15, wherein the input device includes a key pad.

17. The system of claim 13, and further comprising a decontamination unit in

20 cooperation with the outlet, the contamination unit including a collapsible container containing a pre-measured amount of decontaminant.

18. The system of claim of claim 13, wherein the vacuum source includes a centrifugal separator.
19. A method of calculating liquid information evacuated from a source containing liquid, solids, or gas, the method comprising:
 - 5 providing a connector comprising of an inlet, an outlet, a separation chamber in communication with the inlet, an air pathway in communication with the separation chamber and the outlet, and a fluid pathway separate from the air pathway and in communication with the separation chamber and the outlet;
 - 10 coupling an end effector in communication with the source to the inlet;
 - coupling a flow meter to the fluid pathway;
 - applying a vacuum pressure to the outlet; and
 - calculating liquid information from an output provided by the flow meter.
- 15 20. The method of claim 19, wherein two types of liquid information calculated is a flow rate and a total liquid volume.